

WHAT IS CLAIMED IS:

1. A printer comprising:

a thermal head for transferring a plurality of color inks successively to paper so that a color image can be printed on the paper according to image data;

battery power supply means;

voltage detecting means for detecting a voltage developed from said battery power supply means; and

control means for feeding power supplied from said battery power supply means to a load at the timing immediately preceding the transfer of the color inks to the paper, instructing said voltage detecting means to detect the voltage developed from said battery power supply means at the predetermined timing immediately succeeding the feeding of power, and performing correction according to the result of the detection so that a printing density of inks transferred from said thermal head will remain constant irrespective of whether the voltage developed from said battery power supply is high or low.

2. The printer according to Claim 1, wherein the load is said thermal head.

3. The printer according to Claim 2, wherein the load

is said thermal head, and said thermal head is pre-heated by conducting a current to the load.

4. The printer according to Claim 1, wherein: the predetermined timing is found within a period which, after power feeding of a predetermined period, immediately succeeds discontinuation of the feeding of power, which is supplied from said battery power supply to the load for a predetermined time; and during the period, the voltage developed from said battery power supply remains substantially constant.

5. The printer according to Claim 4, wherein the predetermined timing is found with a period of 5 to 10 msec long immediately succeeding discontinuation of feeding of power, which is supplied from said battery power supply means to the load for a predetermined time.

6. The printer according to Claim 1, wherein said control means performs correction by changing a conduction time during which a current is conducted to said thermal head.

7. A printer comprising:

a thermal head for transferring a plurality of color

inks successively to paper so that a color image can be printed on the paper according to image data;

battery power supply means;

battery detecting means for conducting a current to a first load so as to detect a remaining battery capacity of said battery power supply means;

display means for, when the remaining battery capacity detected by said battery detecting means is judged to be equal to or smaller than a battery capacity required for printing, displaying at least an indication of the fact;

voltage detecting means for detecting a voltage developed from said battery power supply means; and

control means for feeding power, which is supplied from said battery power supply means, to a second load smaller than said first load at the timing immediately preceding the transfer of the color inks to the paper, then instructing said voltage detecting means to detect the voltage, which is developed from said battery power supply means, at the predetermined timing immediately succeeding the feeding of power, and then performing correction according to the result of the detection so that a printing density of inks transferred from said thermal head will remain constant irrespective of whether the voltage developed from said battery power supply means is high or low.

8. The printer according to Claim 7, wherein the first load is said thermal head to which a current is conducted, and the second load is said thermal head to which a current is conducted for a time shorter than a time for which a current is conducted to the first load.

9. The printer according to Claim 7, wherein the first load is said thermal head to which a plurality of current pulses is applied, and the second load is said thermal head to which a plurality of current pulses that numbers smaller than the plurality of current pulses applied to the first load is applied.

10. A printer comprising:
a thermal head for transferring a plurality of color inks successively to paper so that a color image can be printed on the paper according to image data;
battery power supply means;
voltage detecting means for detecting a voltage developed from said battery power supply means; and
control means for feeding power, which is supplied from said battery power supply means, to a load at the timing immediately preceding the transfer of the color inks to the paper, then instructing said voltage detecting means to detect the voltage, which is developed from said battery

power supply means, at the predetermined timing immediately succeeding the feeding of power, and then performing correction according to the result of the detection so that a printing density of inks transferred from said thermal head will remain constant irrespective of whether the voltage developed from said battery power supply means is high or low,

wherein for the correction performed by said control means, a correction value is determined based on the voltage detected by said voltage detecting means; and

when the same voltage is detected among transfers of color inks, the correction value is determined to assume the same value among the transfers.

11. The printer according to Claim 10, wherein when the same voltage is detected among transfers of the color inks and transparent overcoat, the correction value is determined to assume the same value among the transfers.

12. A printer comprising:

a thermal head for transferring a plurality of color inks successively to paper so that a color image can be printed on the paper according to image data;

battery power supply means;

voltage detecting means for detecting a voltage

developed from said battery power supply means; and

control means for feeding power, which is supplied from said battery power supply means, to a load at the timing immediately preceding the transfer of the color inks to the paper, then instructing said voltage detecting means to detect the voltage, which is developed from said battery power supply means, at the predetermined timing immediately succeeding the feeding of power, and performing correction according to the result of the detection so that a printing density of the inks transferred from said thermal head will remain constant irrespective of whether the voltage developed from said battery power supply means is high or low,

wherein when the voltage detected by said voltage detecting means is a first voltage, the correction performed by said control means results in printing at a maximum density.

13. The printer according to Claim 12, wherein said battery power supply means develops a predetermined stable voltage after completion of charging, and the first voltage shall be lower than the predetermined voltage.

14. The printer according to Claim 12, further comprising a thermal head temperature measuring means,

wherein:

when a correction value is determined so that when the result of measurement performed by said temperature measuring means is predetermined temperature, printing will be performed at a maximum density;

when the result of measurement performed by said temperature measuring means is higher than the predetermined temperature and the voltage detected by said voltage detecting means is lower than the first voltage, a correction value used to correct the voltage is provided as a virtual density to be set so that a product of the virtual density by a density provided as a correction value determined based on the result of measurement performed by said temperature measuring means will not exceed the maximum density.

15. A printer comprising:

a thermal head having a plurality of heating elements arranged therein in order to print a color image on paper according to image data;

first correction value determining means for calculating a printing ratio relative to each gray-scale level specified in image data representing one line, and determining a correction value according to calculated printing ratios;

second correction value determining means for performing an arithmetic operation using all gray-scale data items, based on which said all heating elements are heated for printing one line according to the image data, and determining a second correction value according to the result of the arithmetic operation; and

control means for controlling the amounts of heat to be generated from said heating elements according to the correction values determined by said first and second correction value determining means.

16. The printer according to Claim 15, wherein said second correction value determining means calculates a sum total of all gray-scale levels based on which said all heating elements are heated for printing one line according to the image data, and determines a correction value according to the sum total.

17. The printer according to Claim 16, wherein said second correction value determining means works out an average level from the calculated sum total, calculates a first average of gray-scale levels exceeding the average level, calculates a second average of gray-scale levels falling below the average level, and determines a correction value according to the first and second averages.

18. The printer according to Claim 17, wherein said second correction value determining means determines a correction value according to a difference between the first and second averages.

19. The printer according to Claim 15, wherein controlling the amounts of heat is achieved by varying only a power feeding time during which power is fed to each heating element.

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